(Copy)

Mr. G. C. Swan,

City Engineer,

Provo, Utah.

Dear Sir:

In reply to your letter of June 29, 1914:

I will state that it will be impossible for me to visit Provo River during this week, but I could make arrangements to be with you gentlemen on or about July 8th, if you deem it necessary after reading over this letter.

If you will remember, I had quite a talk with you and some other gentlemen on the morning of June 13 in regard to the improvement of our records on the Provo River. On that date I made a measurement on both the Provo and South Fork stations and found that our old rating on the Provo River was fairly accurate. However, on the South Fork stations conditions were anything but satisfactory.

yentigated the matter of moving the station on the Provo River to a point at a better location for the installation of an automatic gage, about 4500 feet above the present location of the cable and gage.

As a result of my reconnaissance I would respectfully suggest that arrangements be made with interested parties to cooperate with this office in regard to the purchase and installation of a Stevens or Friez automatic gage on the Provo River at a new location which could be selected by this office in conjunction with the river commissioner or other interested engineers in the problem of securing accurate records on the water supply of the Provo River. Owing to the status of my allotment it would be impossible for this office to install an automatic gage at this station, but we would be very willing to enter into a cooperative arrangement with interested parties on the following conditions.

lst. That a Stevens, or Friez automatic gage be purchased and installed under the directions of this office on the Provo River at a point to be selected at a later date. All costs in regard to the automatic gage and installation of the same will be paid for by outside or interested parties, but free supervision in the matter of the installation will be given, the same being paid for through my office.

2nd. That my office will be willing to attend to securing a reliable record on the Provo River during all future years. All expenses in the above matter will be paid for through the Survey office.

In conclusion of remarks on the Provo River station, I might state that this office will make every effort to interest the Utah Power & Light Company in the above matter, and I am under the impression that if you could secure the necessary funds for the purchase of a Friez gage, (the cost of this gage is \$115.00, F.O.B. Baltimore, Md.) we could probably make arrangements with the UtahPower & Light Company to pay for the installation of the gage. The cost of the installation will probably amount to about \$125.00 or less.

Under the above cooperative arrangements, I am inclined to think that a very satisfactory outcome would be the result, and I would therefore suggest that prompt attention be paid to the above matter.

G.C.S. #2.

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In regard to the station on the South Fork of the Provo

In order to secure reliable estimates of discharge of this station it will be necessary to install an artificial control at some logical point on the stream just as soon as possible. I might state that I have about decided to make another trip to Provo River to investigate the matter of moving the present location of our gage on this stream. However, this matter has been gone over very thoroughly at various times by the filed men, and if we are to secure a reliable record near the mouth of this stream it will be absolutely necessary that a concrete wall be placed across the bed of the stream at some logical point to be selected at a later date. Owing to the small discharge of the South Fork of the Provo River, in relation to the main branch of the Provo River, this office does not care to recommend the installation of an automatic gage at the station. However, if the waterusers of Provo valley are vitally concerned in the flow of this stream, I would suggest that in addition to the artificial control that an automatic gage be installed at this point as well as on the main fork of the Provo River. If an automatic gage is installed, of course all costs for the purchase and installation of the sane must be paid for by interested parties, with the understanding that this office will attend to the maintenance of the records.

I wish that you would kindly go over the above matters in detail, and if you believe it would be advisable for me to make a visit to the Provo River on or about July 8, I wish that you would notify me in time that I may arrange my work accordingly.

Trusting that you can secure the necessary cooperation in the above matters, ${\tt I}$ remain,

Very sincerely yours,

E. A. Porter, District Engineer,

DEPARTMENT OF THE INTERIOR UNITED STATES GEOLOGICAL SURVEY

WATER RESOURCES BRANCH

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Salt Lake City, Utah, November 3, 1915.

Mr. T. F. Wentz, Civil Engineer, Provo, Utah.

Dear Mr. Wentz:

I am inclosing herewith a copy of a letter which was written to Mr. Deming last February in regard to the matter of installing an automatic gage on Provo River. There was a letter taking up the subject more in detail written July 15, 1914, but this letter suggested the location of the gaging station below the diversion of the Utah Power & Light Company, which scheme was later abandoned as the Power Company did not feel it would be desirable to locate a gage in their power canal owing to the impracticability of securing a permanent rating.

However, a permanent station was recently selected about one mile above the present gaging station at the Forks where a very desirable site exists for a permanent rating section but which it will be necessary to equip with an automatic gage as there is no convenient observer.

It might also be desirable to install a permanent section on the South Fork consisting of a flume with a free fall at the lower end, but this, while desirable, is not absolutely necessary as the flow of the South Fork is



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small in proportion to the main flow of the river and an error of two or three second feet in the discharge of the South Fork will make no appreciable error in the total flow of the stream below the mouth of the South Fork.

I believe the power company will still adhere to its original agreement to furnish an automatic water stage register provided the interested waterusers will pay for the cost of installing same under the supervision of an engineer from this office.

The cost of installing the gage on the main river in a permanent concrete well and shelter ought not to exceed \$150.00, and it may be somewhat less than this. If it is deemed best to build a permanent control on the South Fork, which is necessary if absolutely reliable records are to be secured on that stream, the total cost probably will not greatly exceed \$200.00.

Very truly yours.

E. A. PORTER.
District Engineer.

Inclosure.

Salt Lake City, Utah, February 18, 1915.

Mr. Frank Deming, Provo, Utah.

Dear Sir:

Light Company of this city that they will agree to equip the gaging station on the Provo River at the Forks with an automatic gage, provided the waterusers of the Provo River will stand all expenses connected with the construction work necessary for the installation of the automatic gage.

It has been decided that it will not be necessary to install an automatic gage on the South Fork of the Provo River, and as a result the Utah Power & Light Company will agree to stand their share of the expense necessary to improve conditions on this stream by the construction of a flume and artificial control at a site to be selected by this office.

As soon as authorization is received from you to begin this work efforts will be made by this office to install the equipment immediately.

Very truly yours,

(signed) E. A. PORTER,

District Engineer.



Provo, Utah, Nov. 4, 1915.

A.B. Morgan, Judge Fourth District Court State Of Utah. Provo, Utah.

Sir:-

Attached hereto find letters from Mr. Forter, District Engineer of The United States Geological Survey, relative to the installation of an automatic register on the Frovo River in Provo Canyon.

You will note the Utah Power & Light Company will equipt the station with a register, provided the water users will pay for the instalation, and the U.S.Geological Survey "will attend to securing a reliable record on the Provo River during all future years. All expenses **** will be paid for through the Survey office."

Verbally this matter has been taken up by Mr. Swan and myself with a number of the canal companies, practically all are in favor of this move, and are willing to bear their proportionate share of the expense.

I therefore ask that the Commissioner be authorized to advance the amount of money necessary, and that the water users in the Utah Valley be required to pay their respective portions by pecember 1,1915.

This equiptment is to the interests of all parties, I suggest that prompt attention be given this matter.

Respectfully,

Commissioner.